

## **DETAILED ACTION**

### ***Status Of Claims***

1. After-Final Amendment was filed on 3/9/2009. Claims 1-9 are currently pending in the application.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Monica Ullagaddi on 3/23/2009.

Claims 1, 2 and 7 now reads as follows:

1. (Currently Amended) A system for location recognition using IC tags, wherein an interrogator makes a first communication with multiple IC tags existing in a communication area A by radio, and at the same time, one of said multiple IC tags makes a second communication with other IC tags existing in a communication area B ( $<A$ ) by probe signals, the one of said multiple IC tags comprising:

a first responder that responds with own information  $X_a$  to the interrogator;

a transmitter that sends said probe signals to the other IC tags when own information  $X_a$  is specified by the interrogator;

a receiver that receives a probe signal sent out by one IC tag of the other IC tags whose information  $[[Y]] X_b$  is specified by the interrogator;

a storage that stores information  $[[Y]] X_b$  of the one IC tag of the other IC tags specified as a source IC tag by the interrogator in a memory when a reception strength of said probe signal is more than a predetermined level; and

a second responder that responds with the information  $[[Y]] X_b$  of the source IC tag stored in the memory to the interrogator in response to a readout command,

wherein relative positions of said multiple IC tags are recognized from the information  $X_a$  and the information  $[[Y]] X_b$  collected via the interrogator and

wherein the storage stores the information  $[[Y]] X_b$  of the one IC tag of the other IC tags until the readout command is received, the readout command specifying the one of said multiple IC tags corresponding to information  $X_a$ .

2. (Currently Amended) The system for location recognition using IC tags as described in claim 1, wherein all possible combinations of the information  $X_a$  and information  $[[Y]] X_b$  are obtained, and any of the combinations having one side of information in common are joined so that locations and arrangement order of said multiple IC tags are specified.

7. (Currently Amended) A method for location recognition using IC tags, wherein an

interrogator makes a first communication with multiple IC tag existing in a communication area A by radio, and at the same time, one of the multiple IC tags makes a second communication with other IC tags existing in a communication area B (<A) by probe signals, the method comprising;

having the one of the multiple IC tags respond with own information X<sub>a</sub> to the interrogator;

having the one of the multiple IC tags transmit the probe signals to the other IC tags when own information X<sub>a</sub> is specified by the interrogator;

receiving, by the one of the multiple IC tags, probe signals sent by one IC tag of the other IC tags whose information [[Y]] X<sub>b</sub> is specified by the interrogator;

storing, by the one of the multiple IC tags, information [[Y]] X<sub>b</sub> of the one IC tag of the other IC tags as a source IC tag by the interrogator in a memory when a reception strength of a probe signal is more than a predetermined level; and

responding, by the one of the multiple IC tags, with information [[Y]] X<sub>b</sub> of the source IC tag to the interrogator in response to a readout command,

wherein relative position of the multiple IC tags are recognized from the information X<sub>a</sub> and the information [[Y]] X<sub>b</sub> collected via the interrogator, and

wherein the information [[Y]] X<sub>b</sub> of the one IC tag of the other IC tags until the readout command is received, the readout command specifying the one of the multiple IC tags corresponding to information X<sub>a</sub>.

***Allowable Subject Matter***

3. The following is an examiner's statement of reasons for allowance: Prior art fails to show a system for location recognition using IC tags, wherein an interrogator makes a first communication with multiple IC tags existing in a communication area A by radio, and at the same time, one of said multiple IC tags makes a second communication with IC tags existing in a communication area B (<A) by probe signals, the one of said multiple IC tags comprising a first responder that responds with own information Xa to the interrogator. A transmitter sends probe signals to the other IC tags when own information Xa is specified by the interrogator. A receiver receives a probe signal sent out by one IC of tag of the other IC tags whose information Xb is specified by the interrogator. A storage that stores information Xb of the IC tag of the other IC tags specified as a source IC tag by the interrogator in a memory when a reception strength of said probe signal is more than a predetermined level and a second responder that responds with the information Xb of the source IC tag stored in the memory to the interrogator in response to a readout command, wherein the relative position of the multiple IC tags are recognized from the information Xa and the information Xb collected via the interrogator and wherein the storage stores the information Xb of the one IC tag of the other IC tags until the readout command is received, the readout command specifying the tone of said multiple IC tags corresponding to information Xa.

Prior art, such as Lareau teaches a location recognition for IC tags comprising an asset monitoring system (100) that includes a wireless transceiver communicating with various assets dispersed throughout the facility wherein the tags are coupled to various assets. The system facilitates communication from the tags to the remote monitoring

system after communication has been requested and the tags relay communication with other tags in the facility. However, the prior art to do not disclose a first and second responder that responds with own information and information regarding the signal strength to determine the relative position, as stated in the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDNY LABBEES whose telephone number is (571)272-2793. The examiner can normally be reached on M-F: 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Davetta W. Goins can be reached on (571)272-2957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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3/24/09

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